

## METHOD TO IMPROVE DEBT COLLECTION PRACTICES

### FIELD OF THE INVENTION

[0001] This invention relates to the business of debt collection. In particular, this invention relates to a method for improving debt collection.

### BACKGROUND OF THE INVENTION

[0002] The extension of credit by lenders and by the sellers of goods and services has in turn created a concomitant increase in debt, a large percentage of which is delinquent or late, which over time is eventually considered to be uncollectable or “bad” debt. Creditors regularly attempt to collect debts by way of letters and phone calls to debtors and in some instances, debt is at least partially reduced by repossession of assets that secure a debt.

[0003] The process of debt collection has grown into a sophisticated endeavor. Current debt collection processes typically use historical payment and credit data as predictors of future payment likelihood.

[0004] Figure 1 depicts a simplified representation of a prior art debt collection process 100. Extrinsic or external payment data 102, which is typically collected by and available from third party debt collection data services such as Equifax, Inc., Experion, Inc. and others, includes data such as income, debt-to-income ratio, other creditors and a “credit score” which is usually a dimensionless index calculated by the third party credit reporting agency using a proprietary formula to attempt to rate or grade the credit worthiness of the debtor.

[0005] In addition to external data 102, prior art debt collection processes used by many creditors also use internal data 104, which is data on a particular debtor that is collected by a creditor. Internal data 104 typically includes the creditor’s payment history, his purchase history and contact history.

[0006] The payment history 106 typically includes the historical timeliness of required loan or installment payments by a creditor. Payment history data 106 can be valuable in collecting debt if the payment history data 106 shows that a particular debtor

is either habitually late or delinquent in making payments, or consistently makes payments on time. Payment history data 106 can be a good indicator of future payment likelihood.

**[0007]** Purchase history data 108 typically includes data of the business relationship with the debtor over time. A long-time customer as evidenced by purchase history data 108 might be treated differently than a new customer. Accordingly, purchase history data 108 is frequently considered during a debt collection effort.

**[0008]** A contact history or record 110 is typically a record of the substance of communications to and from a debtor. Contact history data 110 wherein previous conversations with or correspondence from a debtor contain debtor represent that payments will be forthcoming but which subsequently prove to be false, can be helpful in determining how to collect an existing debt.

**[0009]** A raw credit score 112 is typically a dimensionless index that is calculated using a creditor-proprietary formula or methodology, the resultant numerical value of which provides some sort of measure of the debtor's credit worthiness. A credit score is based upon historical data and relies upon historical data as a predictor of future payment likelihood.

**[0010]** Contact information 114 typically includes phone numbers, addresses and other information useful in identifying and contacting or locating a debtor.

**[0011]** In the prior art debt collection processes, external data 102 and internal data 104 are analyzed alone or in combination in step 120 in order to determine a risk profile 122 as well as a model of the debtor's behavior 124. The task of collecting all or part of debt is assigned to a debt collector in step 130 based upon the risk profile 122 and behavior model 124 of the debtor.

**[0012]** A problem with prior art debt collection techniques is that they rely upon historical data in determining whether or not to pursue debt collection as well as the techniques of how to pursue debt collection. Historical facts are not always accurate predictors of a debtor's future behavior nor do historical facts always correctly suggest collection techniques that a debtor will respond to. Almost all creditors have many more delinquent debtors than they do collection agents to pursue debt collection. A method by

which a limited number of debt collection agents can be optimally assigned to particular debtors so as to optimize collections would be an improvement over the prior art.

### SUMMARY OF THE INVENTION

**[0013]** A method of optimizing debt collection includes the steps of classifying a debtor according to empirically-determined attitudinal profile.

**[0014]** The approach uses an assessment of current attitudes as well as past behavior as a tool to predict future behavior. The attitudinal characteristics of debtors are used to classify debtors into different customer segments. Each segment can be addressed with an offer, which is a combination of attributes, which have a measured attitudinal response from the customer. When these attributes are combined in an offer or a message to the debtor, the likelihood of a desired response from the debtor can be estimated. The likelihood of a desired response, given a combination of attributes is non-linear and varies according to attitudinal segment. Therefore, each segment suggests a different debt collection strategy to employ with debtors, as well as a point where the elements of the “offer” or message can achieve the greatest likelihood of payment at a given cost to the institution. Debtors are assigned to a particular segment. Debtors in the same segment are targeted with collection tactics specifically designed for them using information and data obtained from the attitudinal profile so as to yield a favorable result. Collection agents are also assigned to debtors in particular segments based upon the skill sets and experience of the debt collector. In other words, different debt collection strategies are used on different debtors in each segment, and the overall effort is optimized since the skill sets, experience, and direct costs of the collectors can be optimally assigned to the individual debtor.

### BRIEF DESCRIPTION OF THE DRAWINGS

**[0015]** Figure 1 depicts a prior art method of collecting debt.

**[0016]** Figure 2 depicts steps of collecting debt including the step of attitudinally classifying a debtor.

**[0017]** Figure 3 shows steps of attitudinal classification.

**[0018]** Figure 4 depicts a method of determining the likelihood of repayment.

[0019] Figure 5 depicts three, attitudinal group divisions.

[0020] Figure 6 depicts the steps of a method of assigning a debt collection task to a particular debt collection resource.

#### DETAILED DESCRIPTION OF A PREFERRED EMBODIMENT

[0021] Figure 2 depicts a flow chart of a debt collection process 200. In the preferred embodiment, the steps of the method depicted in the flow chart of Figure 2 are performed by one or more individuals, i.e. not by a computer, however, those skilled in the art of debt collection will appreciate that the steps of the methodology depicted in Figure 2 could be practiced at least in part using an appropriately programmed digital computer.

[0022] In the process depicted in Figure 2, as in the prior art, certain external or extrinsic historical data 202 is acquired, read or otherwise obtained for a particular debtor. Inasmuch as the external data is historical data, the external data can change over time. For purposes of this disclosure therefore, the acquisition of external data step 202 is for a particular time,  $T_1$ .

[0023] External data 202 can include, but is not limited to the debtors: aforementioned credit score; income level; debt to income ratio or debt structure; life events and other demographic data (educational level, profession, address or region of the country where the debtor is located) bearing upon ability to pay for debt and which is data that can be lawfully supplied by, and collected from, third party credit reporting services such as those mentioned above. The external data acquisition step 202 is to acquire certain historical information, which by experience has been shown to be good indicator of whether future payments will be made by a debtor to his or her creditors.

[0024] In step 204, a creditor will almost always have it's own "internal data" such as the aforementioned payment history, purchase history, contact history and a raw credit score calculated from items such as income, debt to income ratio, and payment history to yield a numerical index of the credit worthiness of the debtor. In step 204, internal data, such as payment history, purchase history, contact history and a credit score is acquired for subsequent analysis and processing.

**[0025]** In the preferred embodiment, external data 202 and internal data 204 are acquired from third party credit reporting agencies as well as internally-collected data. Much of the external and internal data is manually acquired and examined, however, automated acquisition of such data could be readily accomplished by a computer reading one or more files, so, for claim construction purposes, steps of acquiring or considering historical payment whether by computer or by a person should be considered to be equivalent.

**[0026]** In step 206, a debtor is attitudinally classified into one of potentially several different attitude segments, the assignment into each of which at least suggests a particular debt collection strategy to use or employ with the debtor. In an exemplary embodiment, attitudinal classification 206 is a process (described more fully hereinafter) by which a debtor is empirically classified into one of at least three different types of individual segments. In such an embodiment debtors can be classified as either “negotiators”, “worriers” or “indignants” in order of the debtors increasing resistance to debt collection solicitation. Other embodiments of the inventive process can use virtually any number of segments subject of course to the identification or designation of characteristics that define distinctly different segments.

**[0027]** After a debtor has been attitudinally classified in step 206, a likelihood of payment analysis is performed in step 208. The payment likelihood analysis 208 is based upon and derived from the debtor’s attitudinal classification.

**[0028]** By way of example, it is generally known among debt collectors that various debtors will respond differently to a creditor’s request for payment depending upon whether the creditor offers any kind of concession or assistance to the debtor. Stated alternatively, a creditor’s offer to a debtor to extend a payment schedule or a payment due date or perhaps withhold damaging credit history from a credit data collector, might enhance a debtor’s willingness pay a debt. These concessions, methods of assistance and treatment tactics can be viewed as attributes of a collection strategy. The survey of debtor attitudes seeks to quantify the value each debtor places on each of these attributes, as well as the preferences for each level within these attributes. For example, concessions can be defined as loan term extensions of 1, 2, 3 or 4 months. Debtor treatment tactics can be defined as full payment or partial payment. For a given

debtor attitudinal segment, the ideal combination could be a 2-month extension of term plus a partial payment of the current month's past due amount. By presenting this combination of attitudinal based offer, the debtor would provide a promise to pay, with a high probability that payment will be received by the lender/creditor.

**[0029]** In step 210, responsibility for collection of a debt from the debtor whose external and internal data was collected in steps 202 and 204 and who was attitudinally classified in step 206, is assigned to a debt collection strategy, which includes for example a debt collector, the experience and skill set of which is identified to, and which correlates with, the type of debtor from whom collection is sought. Debt collectors and the strategies that can be used on a particular type of debtor are similarly characterized prior to the debt collector assignment step. Stated alternatively, upon the classification of the debtor's attitude in step 206, and the analysis of payment likelihood in step 208, the responsibility for debt collection will be assigned to a debt collector agent using payment likelihood and attitudinal classification in order to find the debt collection strategy best suited or best matched to accomplish the goal of collecting the bad debt.

**[0030]** The procedure of attitudinal classification step 206 is illustrated in greater detail in Figure 3, which shows the steps of an attitudinal classification process 300. Attitudinal classification is accomplished using socio-demographic characteristics of debtors.

**[0031]** With respect to Figure 2 and Figure 3, it is generally known that sellers of goods and services frequently extend credit to existing and potential customers as a mechanism for generating increased sales. It is also generally known and understood that a seller of certain types or kinds of goods and/or services will frequently have debtor customers who share various demographic characteristics, attitudes and values, among other things.

**[0032]** In step 302, the population of debtors of a particular creditor is first sampled by polling a subset of all debtors in order to determine from a representative sample (i.e. the aforementioned subset) characteristics, attitudes, values and or other information, which they share in common with each other. Sampling a debtor population of a particular creditor to learn of financial-related characteristics enables the creditor to

identify from the sample, characteristics that can be used in predicting attitudinal segment membership.

**[0033]** Inasmuch as a particular creditor will generally have groups of debtors with similar repayment priorities and capabilities, the debtor population sampling of step 302 identifies such capabilities and characteristics of all debtors by polling, questioning or interrogating an appropriate cross section, i.e. a sample, of the population of all debtors of a creditor as to their socio-demographic characteristics. In the preferred embodiment, acquiring debtor data in step 302 is accomplished by polling, questioning or interrogating, which can be performed using (but not limited to) any appropriate communication method including but not limited to: direct solicitations in person, by phone or e-mail; questionnaires to the members of the sample population or from data provided to the creditor by debtors on loan or credit applications.

**[0034]** As part of the debtor population sampling of step 302, a creditor needs to obtain from the sample of the debtor population, the debtors' views of or attitudinal responses to different debt collection processes and strategies. By way of example, the sample of the debtors of a creditor can be polled to gauge their responsiveness to different types of collection techniques; their interests in retaining favorable credit ratings; the responsiveness to different payment terms or payment plans, the effect or lack thereof on contact frequency, the effect upon the debtor of the perceived attitude or demeanor of a collection agent and the debtor's interest or willingness to consolidate his or her credit to effect payment to all creditors.

**[0035]** While the preferred embodiment of the methodology disclosed and claimed herein contemplates manually querying the sample of debtors, those skilled in the art of computer programming will appreciate that soliciting information from debtors could be obtained mechanically using for example, automated data collection via a debtor's telephone keypad inputs as responses to questions posed during telephone inquiries or perhaps computer-readable input forms filled out at the time of a credit application.

**[0036]** Once the debtor survey or sampling of step 302 is accomplished, survey respondents and the data acquired from them are used to classify the debtors of a creditor into like groups. In step 304, debtor population sample responses are used to attitudinally

classify all members of the population of debtors of a particular creditor into different segments based upon identifying characteristics or attitudes of respondent debtors, hence the claim limitation moniker of “attitudinal classification.”

**[0037]** By way of example, the respondents of sample step 302 who have a particular income level and a particular educational background and who value the maintenance of a favorable credit rating by credit reporting agencies comprise one type of debtor. Such individuals often value the ability to restructure a debt so as to make repayment possible. Collecting debt from such individuals is best handled by appealing to the debtor’s preference to pay off a debt by restructuring his or her payment obligations. Another type of debtor might be characterized having a low income level, no or less formal education, ambivalence about a credit rating and an ambivalence toward abusive or abrasive individuals. Such individuals often respond only to the most aggressive collection techniques. Collecting money from such individuals is usually best handled using aggressive collection tactics.

**[0038]** A third category of respondents might be grouped together based upon their admission that they are concerned about credit report or credit worthiness, their importance of their ability to defer payments, their preference for being contacted at home as opposed to at work or on the job, their preference to work with professional collection agents as opposed to abusive or abrasive collectors and their interest in obtaining a follow up written confirmation of a payment plan. Debts from such debtors are best collected by appealing to the debtor’s concerns about his or her credit rating..

**[0039]** In step 306, three different debtor profiles are created based upon the classification of respondents into three, similar groups or segments. Using the aforementioned examples, the debtor population sampling and their responses to survey questions or inquiries can identify three distinct types of debtors that can be labeled “negotiators”, “worriers” and finally “indignants.” The “negotiators” are classified by their reliance or preference for debt payment term flexibility, their interest in extending a payment term, the relative low value they ascribe to the personality or professionalism of the debt collection agent and their preference to be not contacted repeatedly about debt collection. A group of “worriers” are characterized as being overly concerned about a credit report, strongly value their ability to defer payments, appreciate the personality or



professionalism or deference accorded collection agents to them, want to be contacted at home, and prefer a follow up written confirmation of any payment reformulation. A third character of debtor denominated as “indignants” do not care about the personality of an agent, do not care about their credit rating, dislike telephone solicitation calls and do not respond to aggressive collection methods.

**[0040]** Three debtor group profiles, which are arbitrarily denominated herein as “negotiators”, “worriers” and “indignants” are used to classify the remainder of the debtor population. In step 308, debtors in the population of all debtors of a creditor are characterized as either negotiators, worriers or indignants using the external and internal data acquired in steps 202 and 204. Stated alternatively, individuals who were classified as “negotiators” will in general have comparable income levels, debt structure, similar life events, similar demographic data, and if they have similar payment history, purchase history and contact history as well as comparable credit scores they will also likely have the same responsiveness to the same or similar debt collection strategies. Similarly worriers and indignants will all likely have comparable credit scores, income levels, debt structures, life events, payment histories, purchase histories and contact histories as other individuals in the same group. In some instances, debtors of a creditor might need to be unclassified, such as where no external or internal data for a debtor is available. Accordingly, a fourth non-classification profile will frequently be required into which debtors who do not fit any other profile are assigned.

**[0041]** In step 308, each of the debtors of a creditor are classified into at least one profile using the previously acquired data to assign them into one or more attitudinal segments each of which at least suggest a different debt collection strategy to use with respect to each debtor. With respect to Figure 2, after a debtor is attitudinally classified, the debtor’s re-payment likelihood is determined in step 208.

**[0042]** Figure 4 depicts a more detailed depiction of a method 400 of how to determine likelihood of re-payment. In classifying respondents in step 304, their answers to questions or inquiries are used to group debtors together that are related.

**[0043]** In step 402, there is performed a weighting or tabulation of the relative importance placed on each attribute, characteristic or response that was queried in step 304. The “relative importance” of an attribute, characteristic or response is a

dimensionless value, but which needs to minimally identify an attribute, characteristic or response as at least either “important” or “unimportant” to the debtor.

**[0044]** In addition to weighting attributes in step 402 the debtor’s relative order of importance is also determined by either measuring the responses in step 304 or by directly questioning the debtor as to what the debtor considers to be of most importance to least important.

**[0045]** In step 404, hypothetical collection strategies are formulated at least initially from a combination of attributes that are of greatest importance to the particular segment of which the debtor is a member. Negotiating tactics such as a script to follow when calling a debtor, time of day to call, locations where the debtor should be contacted, threats or offers to convey are some collection tactics that can be additionally selected as part of a collection strategy as well as the personality, education and experience of the collection agent who will ostensibly contact the debtor.

**[0046]** In step 406, the hypothetical collection strategy of step 404, which is intended to be used on (or against) debtors of each debtor profile, is experimentally employed using the members of the debtor population sample that were queried to derive the various debtor profiles identified in step 302 and which were sampled in step 304. In testing the hypothetical collection strategy on a group that it is intended to be used on (or with) the relative effectiveness of the hypothetical collection strategy formulated in step 404 can be tested under a relatively controlled environment comprised of known subjects not unlike those that the strategy is intended to be used on.

**[0047]** In step 406, the hypothetical collection strategy of step 404 is iteratively adjusted if needed (changed by including or deleting tactics) in order to maximize its effectiveness on the debtor profile for which it was developed. After the collection strategy for each debtor profile is maximized by being tested on debtor profile members, its relative effectiveness on debtors of the particular profile can be quantified by measuring the results it obtains from the profile thereby enabling a mathematical prediction of the likelihood of collection.

**[0048]** Figure 5 depicts a chart 500 of three attitudinal groups, which for purposes of illustration only, depict characteristics of individuals in the various debtor profiles or debtor groups as determined by their responses to the debtor population sampling and

querying from steps 302 and 304. As can be seen from Figure 5, negotiators, worriers and indignants each share certain characteristics that can be useful in soliciting a debt repayment. For individuals whose top priority is to maintain their credit worthiness in the eyes of third party credit reporting agencies, as opposed to individuals who do not care about their credit rating suggest distinctly different methodologies or debt collection strategies to use with each other. A debt collection strategy depicted in Figure 4 is developed for each of the debtor profiles shown in Figure 5. Once the most effective debt collection strategy for each debtor profile is developed, deployment of the debt collection strategy is the responsibility of individual debt collection agents, the qualifications and abilities of whom vary considerably. Debt collector to debtor assignment preferably pairs the best debt collectors on debtors who are predicted to be least likely to pay. Whether a particular debt collector is considered to be better or worse is objectively determined using data such as the collectors education, skill set evaluations based on demonstrated knowledge of the attitudinal segment characteristics, time on the job but most importantly by the number of dollars collected over time, normalized to yield a relative success rate of the collector working in a given segment, keeping in mind that an objective determination of a debtor's likelihood of repayment or his or her willingness to repay has been heretofore undefined.

**[0049]** Figure 6 depicts the steps of a method of assigning a debt collection task to a particular debt collection resource, for example, a particular debt collection agent of a set of agents by matching debtor profile to debt collector skills. Other debt collection resources include a particular script or negotiation technique or tactics that any collection agent should use with the debtor; the method of debtor contact, e.g., telephone, in-person or by mail; the timing and frequency of contacts.

**[0050]** It is well known in the debt collection practice, that different collection strategies will have different effectiveness on different individuals. By way of example, repeated aggressive phone calls will have little or no effect and in fact may impede collection when such techniques are employed against the aforementioned indignants. Debtors who are classified as indignants have been empirically determined to respond better to debt collection strategies that subtly suggest adverse consequences to nonpayment made by more tactful or diplomatic debt collector agents. Conversely,

worriers who are very concerned about credit reporting by third parties, and who strongly value their ability to defer payments will be most responsive to debt collection strategies that tactfully suggest adverse consequences of late payments in a way that the messages unmistakably convey to the debtor, i.e. pay up or face or damaged credit report.

**[0051]** For the negotiator class of debtor, the top priority of which is payment restructuring or payment flexibility, empirical data might suggest that more confrontational collection techniques are more productive.

**[0052]** In Figure 6, the attitude classification is assigned a descriptive index along with a scalar index of the debtor's likelihood to pay. In one embodiment, the classification is a scalar. An ability to pay score is also calculated based in part on the debtor's income level to yield another scalar the value of which points to one or more groups of debt collectors each of which is assigned into a particular group based upon his or her skill level and collection strategy he or she is instructed to follow.

**[0053]** By way of example, in Figure 6 a debtor account of a fictitious debtor "John L. Smith" had an attitudinal classification of "indignant", a likelihood to pay score of "low", and an ability to pay score of "high" yielding a collection strategy arbitrarily named "3A" but corresponding to a collection strategy using a skilled collector and specific negotiation tactics.

**[0054]** From the foregoing, it should be apparent that by classifying debtors into one of several different groups, the numbers of each group having similar payment preferences and likelihoods makes it possible to project that other individuals of like characteristics and backgrounds will likely perform similarly in response to the same collection techniques. Collection techniques for different classes of debtors are experimentally adjusted for maximum impact by being tested on one or more debtors who can be classified into the group on which a collection strategy will be used.

**[0055]** The collection strategy maximized for impact on a particular debtor profile is employed by debt collection agents best suited to confront a debtor using the experimentally adjusted debt collection strategy. Debt collection strategies that can be used on the various kinds of debtors in the aforementioned segments include, but are not limited to, directly contacting a debtor by a collection agent. The form of the direct contact can include an unexpected telephone call or a personal visit with the debtor.

Another debt collection strategy that can be used with the various segments is merely sending a written solicitation for payment. Yet another debt collection strategy, which can also be considered to be an extension of a direct contact strategy is to fashion a debt collector's script or outline of a thematic message to impart upon the debtor of a particular segment to maximize the likelihood that the debtor will repay.

[0056] In a preferred embodiment, it is preferable to match highly skilled debt collection agents to the most problematic debtors; conversely the least skillful and least likely to succeed debt collectors are assigned to the debtors who are most likely to pay. By conserving the time and availability of the most skillful debt collectors, it is possible to optimize the debt collection process so as to maximize the number of dollars collected over time while simultaneously minimizing the amount of time required from the most skillful debt collectors and the cost of collecting delinquent accounts

[0057] While the preferred embodiment of the debt collection methodology described and claimed herein contemplates usage by an individual, implementation and practice of the method and the steps thereof could also be performed by suitably programmed digital computer or computer network.